A REPORT ON ENDOWMENT MANAGEMENT POLICIES AND PRACTICES

Preface

I have been asked by Ropes & Gray, the outside counsel to St. Paul's School, to conduct a thorough review of the school's endowment management policies and practices, including but not limited to its investment philosophy, asset allocations, procedures, and investment performance. To do this, I have visited the School and the office of its investment consultant. I have requested and received various investment related reports, documents, and data, including copies of the School's current Investment and Conflict of Interest policies. I have analyzed this investment information, and I have compared it to information that is at my disposal describing other endowments. I have interviewed the school's CFO, Treasurer, and investment consultant, in each case for an average of about two to three hours. I have spoken telephonically with four members of its Investment Committee, for an average of about a half hour. I have gathered the views and opinions of all of these individuals, and I have formed my own opinions, and reached my own findings. This is my report, organized into four important categories of findings: the investment philosophy, the asset allocation, the external investment managers, and the (internal) organization and processes.

The Investment Philosophy

An analysis of the endowment portfolio and practices of SPS over the last decade reveals an evolution toward a clear and consistent investment philosophy. SPS's investment philosophy is relatively unusual when compared to that of the majority of private secondary schools, though it shares much in common with the philosophies of several leading private secondary schools and quite a few leading universities. Its principal tenets seem to be:

- a strong inclination toward equity assets, not fixed income
- a preference to be diversified within equities
- a process of value-driven reallocation among various equity vehicles, according to changing market prices
- a willingness to invest in less traditional equity vehicles (sometimes called "alternative assets"), including hedge funds and private equity funds, if appropriate from a valuation and risk perspective
- an inclination toward investment vehicles managed by smaller firms with fewer assets under management (AUM), as opposed to large well-known firms with larger AUM.

These are sound and sophisticated tenets of an investment philosophy for an educational endowment, tenets that are both appropriate and prudent. To be sure, they are not the only possible choices for an investment philosophy. There are many appropriate paths for successful endowment investment; and, indeed, many similarly situated private schools either explicitly or implicitly follow a more traditional investment path. But the investment philosophy of SPS has been more or less consistent with the recent evolution of investment thinking among a number of leading private secondary schools and many leading university endowments, and it is soundly based upon a set of realistic beliefs and assumptions about the nature of investment returns and risks and the difficulty of adding investment value in financial markets.

Asset Allocation

Guided by the above investment philosophy, the asset allocation within the SPS endowment has been evolving in the recent past:

	Actual 1995 Allocation	Target 2001 Allocation	Target 6/30/2003
Publicly-traded Securities:			
Domestic Equity	73%	28%	20%
Foreign Equity	9	7	2
"Hedge Funds"	14	30	50
Cash	2	3	2
Private Securities:			
Venture & Private Equity	3	28	21
Energy		4	5

"Hedge Funds" as used by SPS in this context is a very heterogeneous category, lumping together many different kinds of private partnerships with very different asset allocations and very different investment strategies. A finer breakdown of the evolution of SPS's "Hedge Funds" category over time is:

	Actual 1995 Allocation	Target 2001 Allocation	Target 6/30/2003
Funds of funds	14%	13%	13%
Event driven (arbitrage)	0	17	17
Long/short Equity (domestic)	0	0	12
Long/short Equity (foreign)	0	0	3
Emerging Market Debt	0	0	5
Total "Hedge Funds"	14	30	50

The most important change within the SPS endowment has been the reallocation from the traditional domestic equity (sometimes called "long only" equity) to target allocations in "alternatives," including both private securities and "hedge funds." This evolution in asset allocations has also been occurring in many other endowments. Yale University is often described as a significant leader, perhaps the significant leader, in the endowment management world, and fortunately they have published the evolution of their own asset allocation, which is broadly representative of other leading university endowments (Harvard, Princeton, Stanford, Duke, etc.):

	Yale University Policy Asset Allocation (%)[1]				
	1985	1990	1995	2000	2003
Publicly-traded Securities:					
Domestic Equity	65	45	25	15	15
Foreign Equity	10	15	12.5	10	12.5
"Absolute Return" (hedge funds)	0	0	20	22.5	25
Domestic Fixed Income	15	20	12.5	10	10
Private Securities:					
Venture & Private Equity	0	10	20	25	17.5
Real Assets	10	10	10	17.5	20

The evolution of SPS toward "alternatives" is generally similar to that of Yale, though at SPS this evolution took place later (post-1995), following the earlier evolution (1985-1995) at Yale and other leading universities.

Examining the details, SPS's allocation toward "hedge funds," which has grown to 50%, is a good deal higher than Yale's and that of most large endowments, though there are individual endowments with allocations comparable to SPS.[2] Drilling down more deeply into the investment reasoning behind this evolution at SPS, we can observe that the growth in "hedge funds" came largely in the "bubble period" of 1998-2002 (see Exhibit 1). During this period, the SPS Treasurer (and Investment Committee) became quite worried about the high price of common stocks in the U.S. (and to a lesser extent, abroad), and the resulting risks to equity investors if and when equity prices would sharply decrease. The allocation decisions toward "hedge funds" were clearly value-driven and risk averse, in the best traditions of those philosophies. The allocations were deliberately made to a diverse group of "hedge funds" with very different strategies. The net effect of these shifts (at SPS but also at Yale) was to produce a much more diversified portfolio, with much less exposure to possible down markets in the U.S. and abroad. SPS's investment results for the "bear market" of 2000-2002 clearly display the effectiveness of this allocation strategy:

[1] The Absolute Return category, as defined by Yale, is one of the components of SPS's "Hedge Funds" category. The "Real Assets" category, as defined by Yale, includes real estate partnerships that SPS would have defined as Private Equity, and other partnerships that would have been included by SPS in "Hedge Funds." Notwithstanding these definitional details, the SPS asset allocation evolution is broadly similar to that of Yale.

[2] Harvard, for example, has large internally managed "hedge funds" which, combined with their external hedge funds, would constitute over 50% of their assets.

	Bear Market Cumulative Returns 1/1/00 – 3/31/03
SPS Endowment	4.9%
S&P 500 Index	-39.5%
Balanced Fund Index 60% S&P 500, 40% Bonds	-14.7%

The SPS endowment did remarkably well during this difficult period, measured relative to market indices and measured relative to other endowments and investors. One of the most important rules of successful investing is to avoid losing value during severe bear markets, and SPS accomplished this task rather well during this recent period, precisely because of their allocations toward "hedge funds".

Comparing the SPS asset allocations to other endowments beyond Yale, we first examine college and university endowments. We begin there because there are several published surveys that examine a broad group of such endowments.[3] Exhibit 2 displays data from a number of these surveys. Looking first at SPS's allocation to private securities, it is similar in size to some of the large university endowments (Yale, Harvard, MIT, Stanford, etc.) Indeed, in the recent 2003 Goldman Sachs/Russell survey shown in Exhibit 2, the median (large) endowment had a total of about 22% in the sum of private equity and real estate, just about equal to SPS's 21% in private equity (which includes a few percent in real estate.) The reallocation toward private equity within the SPS endowment, then, is certainly consistent with what has been occurring in some of the leading university endowment organizations.

The recently-released NACUBO study of asset allocations for 2003 (Exhibit 3) allows us to drill down into over 700 college and university asset allocations, and analyze them as a function of the size of the endowment. From this data, it is clear that larger university endowments now use "alternatives" such as hedge funds, private equity (including venture), real estate, etc. substantially more than smaller endowments. Smaller endowments have tended to keep a much more traditional investment posture, using "long-only" managers in equity and fixed income. In the author's experience, though, the critical variable is not the endowment's size, but rather the experience and sophistication of the individuals involved with the key investment decisions. In those schools, large or small, where the Investment Committee (or a similar group) is composed of investment professionals with substantial familiarity and experience with recent investment management practices, both broadly and with "alternatives" in particular, the evolution toward "alternatives" has often been very pronounced. In other schools, large or small, where those groups were less experienced and/or less aware of current investment management practices, the evolution was much less pronounced and

[3] Unfortunately, no similar surveys exist for private secondary schools. There is, however, one private confidential survey that the author has access to which covers a relatively small group of such schools.

sometimes almost non-existent. Generally, the larger schools are more likely to have experienced and sophisticated investment professionals within their alumni groups, and this probably explains a good part of the variation with size.

In terms of other private secondary schools, while there are no published broad survey data for such schools (that the author knows of), it is quite likely that the 2003 asset allocations of SPS are quite different from the average of all such schools. On the other hand, an evolution of asset allocations similar to that of SPS has been underway during this same time period at a number of leading secondary school endowments. This is particularly true of the evolution toward greater use of "hedge funds," (as defined for purposes of the above data), where it is not uncommon to find 20-30% allocations to these alternatives within the endowments of leading private schools. While SPS's allocation of 50% is high relative to this group's median, there are several other private secondary schools and at least one private primary school that have comparable or larger allocations to "hedge funds."[4] The SPS allocation is unusual, but certainly not unique. Comparable evolutions have also taken place among some other private schools where members of the school's Investment Committee are also active knowledgeable participants within the institutional investment community.

There have been a number of concerns raised by various external critics of SPS about the relatively untraditional SPS asset allocation which are worth addressing explicitly, one of which is the fear of illiquidity. On this dimension, though, there are just no real grounds for concern. To be sure, the 21% of the portfolio allocated to private equity (including venture capital) is quite illiquid, as are the energy investments, and there are some commitments to other private equity funds not yet drawn down, which would add to the total illiquid positions. But a portfolio allocation to illiquid assets in the mid 20% range is not that uncommon among many leading university endowments, and certainly would create no issues vis-à-vis the normal or even possible unexpected payouts to the school. Even if the total became 30% in the future after various commitments were drawn down, this would not be a problem. Liquidity would be a problem if, and only if, the 50% allocated to hedge funds was illiquid, too. But, in fact, just the opposite is true. These partnerships invest almost exclusively in marketable securities, sometimes long and sometimes short, but always in relatively liquid securities. Unlike a mutual fund, most of these partnerships can be redeemed only at certain calendar times, sometimes monthly, or quarterly, and in some instances annually. But these periodic redemption opportunities provide much more than enough liquidity for any foreseeable or unforeseen needs that SPS might have. Fully 70% or so of the funds are available for an endowment that normally pays out about 5%, or something like 14 times the annual liquidity needs. So there are really no legitimate grounds for fears of illiquidity.

There might also be a potential concern among the critics about undue portfolio concentration and/or risk stemming from the 50% allocated to hedge funds. One can

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[4] Again, these allocation data for other schools are not public. Some of this knowledge comes from the author's own experience and involvement at comparable schools. Some comes from a non-public confidential survey the author has seen that compiled recent asset allocations and performance for private secondary schools.

imagine, for example, a theoretical strategy where the 50% was allocated to a small number of leveraged speculative hedge funds with risky highly correlated "bets," a risky portfolio profile indeed. Upon close examination, though, this theoretical concern is just not justified. First, as noted above, the hedge funds employed by SPS are very diverse. In addition, they individually and collectively tend to use only moderate leverage. One of the largest sub-categories is "Funds of Funds," which themselves are diverse stables of different types of hedge funds. Upon a detailed examination, the long/short equity funds have relatively little leverage and relatively modest net exposure to equity markets (ßeta), and relatively low correlations relative to each other.[5] The event-driven arbitrage funds similarly have relatively little net exposure to equity markets (ßeta) and relatively modest correlations with the other sub-sectors of the portfolio. Taken individually, each of these private partnerships seems to have only limited risks, and much less exposure to equity markets than a traditional long-only equity manager. Taken as a whole, because of diversification, this group of hedge funds is in fact a quite safe way to participate in financial markets, substantially safer than traditional "long-only" equity investing.

A related concern might be the lack of fixed income assets, which generally serve as a diversifier in many traditional portfolios. If SPS had a great deal of exposure to equity markets, then fixed income would indeed be an important potential diversifier. In this instance, though, with equity exposure already reduced significantly by the relatively large allocation to a diverse group of hedge funds with only limited equity exposure, the need for fixed income is much less clear. In effect, the objective of SPS's portfolio of "hedge funds" is to behave, in asset allocation terms, like a higher return version of fixed income. The lack of traditional fixed income, then, while unusual, should not be a cause for concern at this time.

Another potential concern could be that, with so much allocated to alternatives, SPS will not participate fully enough in the current or future bull markets. This is a more subtle and sophisticated concern, effectively questioning whether the aggregate SPS portfolio is "risky enough." Indeed, in calendar 2002, long-maturity bonds did very well, and in calendar 2003, equities did very well, and SPS performance in these periods could have benefited from more direct "long-only" or traditional exposure to each of these markets. While SPS protected its endowment extremely well during the bear market of 2000-2002, its performance relative to its peers lagged in 2003 because of this "underexposure to equity risk."[6] This concern could be accentuated by the observation that a lot of institutional capital is now flowing into "alternative investing" and "hedge funds," and these strategies may not be nearly as effective in the future as they have been in the past. The Treasurer and Investment Committee of SPS are well aware of these issues, and share some of these same concerns. Just recently, they have decided to scale

[5] "ßeta" is the formal statistical quantity used to measure the exposure of a portfolio to equity risk.

[6] In particular, in fiscal year 2003 (ending 6/30/03), the SPS endowment return was just .7%, below its own target benchmark return of 1.3%, calculated from target allocations and index returns, and well below an estimated median performance for peer institutions that was probably in the 3 to 5% range. Presumably, the relative performance for calendar 2003 will lag SPS's peers even more, because the bull market continued in the last six months of 2003 and SPS had less equity exposure than its peers. These relative performance numbers are in sharp contrast to 2000-2002, of course, when SPS asset allocation and low equity exposure really helped its relative performance.

back some of the hedge funds (the event-driven arbitragers, in particular), and reallocate these funds toward more traditional long-only equity managers. This will presumably be an ongoing discussion item with the Investment Committee and the Treasurer, and it is best dealt with in the normal investment policy discussions of that group. In a sense, it's a balancing of the threat of real loss to SPS against the opportunity costs of having a portfolio too insulated from the equity market, a constantly changing balancing act that is one of the most important tasks of endowment managers.

All in all, a detailed analysis of the asset allocation of SPS over time suggests that the endowment has been carefully managed, in a thoughtful and distinctive way, using non-traditional asset classes, with clear attention to value considerations and to risk control. Quite a few other leading private schools and universities have also evolved their asset allocations in these directions, but not many to the same extent. The positive investment performance results of SPS during the recent very difficult markets confirm the wisdom of the earlier asset allocation evolution, though its downside will be potential underperformance in strong bull markets.

External Investment Managers

As with most endowments, the SPS investments are actually managed by a stable of external investment firms, both more traditional "long-only" external managers and "hedge funds". The role of the Treasurer (with the advice and approval of the Investment Committee) is to evaluate, select, monitor, and when necessary terminate these external managers. The rosters of the external managers used by SPS for managing marketable securities in 2001 and 2003 are shown in Exhibit 4.[7]

Several features of Exhibit 4 are quite worth noting. First, a casual observation suggests there are very few "well-known" names on these rosters. With the exceptions of Neuberger Berman (which is well-known) and Brandes (which is well-known in institutional money management circles), most of these firms have a quite low profile. Upon closer examination, the common feature of those firms (again, with those two exceptions) is that they tend to be relatively small in terms of people, and small in terms of clients and assets under management (AUM). It is clear that a preference toward small firms is a relatively important tenet of SPS's investment philosophy. This preference stems from a belief that the larger the AUM, the more difficult it is for an investment firm to add value relative to an indexed or passive approach. According to this view, if an institution like SPS seeks to add value, it should employ investment managers with relatively small AUM. Otherwise, it should index. This belief is soundly based in both theory and practice and widely shared among institutional investors, except of course within large traditional investment management firms with large AUMs. What is different about SPS's endowment is the degree to which this belief seems to weigh more heavily than other potential criteria, and the degree to which it is rigorously pursued in selecting and maintaining a stable of external managers.

[7] There are also quite a few private equity funds, and two energy funds, not listed in Exhibit 4.

Another interesting feature of Exhibit 4 is the rate of turnover of managers between 2001 and 2003. In the endowment world, the average duration of an institutional money management relationship is somewhere around five to seven years, though there is a huge variation in this duration across endowments. On this basis, one might have expected just a few roster names to change over the approximately two years. In fact, though, many of the names change. A number of the earlier small firms produced less than stellar performance over their years with SPS, and SPS's consultant was able to find a new group of small firms that had stronger (and more stable) investment performance during these same earlier periods. This two-year history may be a little unusual relative to SPS's longer history, but nonetheless the rate of manager turnover seems high relative to many other endowments.

One concern voiced by some of SPS's external critics is that there have been several conflicts of interest regarding the selection of external managers. There were only two "conflicts" found in the course of this study: one of the event-driven managers (Actium) is managed by the former partner of the Treasurer (though the Treasurer has no current business relationship with him or the firm), and one of the private equity firms is managed by a relative of one of the Trustees (though not one on the Investment Committee). Neither of these "conflicts" seem particularly serious, they have both been disclosed to the Trustees and beyond, and no other instances of potential conflicts have been found during this study. Viewed relative to most other comparable endowments, the SPS situation seems relatively conflict-free. In the more usual case, for example, the Trustees and particularly the Investment Committee members often include quite a few people from the investment community with wide-ranging networks of associates, multiple roles within various institutions, and family ties to others in various institutions. Generally, there are numerous conflicts, and potential conflicts, and institutions must be very careful in navigating through these in an appropriate way. At SPS, in contrast, the choice of external managers and the situation as a whole seems relatively untroubled by such potential conflicts; and the School's formal Conflict of Interest Policy seems quite rigorous.

Another concern that could be raised by some external critics is the possibility that the fees paid by SPS for investment management could be large. It is true, of course, that private partnerships, both hedge funds and private equity funds, tend to charge annual fees that are often larger than traditional long-only equity managers, plus they generally get a 20% "carry" of the incremental capital gains above some benchmark return. Partnerships that produce excellent results, therefore, can earn substantial economic rewards, and endowments that employ those managers can pay substantial fees as part of the bargain for superior performance. In addition, among long-only equity managers, those external managers with smaller AUM often tend to charge somewhat higher fees as a percentage of assets, at least relative to very large managers with much greater AUM. So, the investment philosophy and asset allocation of SPS will inherently result in higher fees than a more traditional investment management structure, particularly one using large external firms with huge AUM. And, of course, this will be especially true if the performance results are excellent. A detailed look at most of the fees and partnership agreements reveals, however, that SPS's external managers do not seem to charge particularly high fees relative to their universes of comparable managers. The SPS private equity partnerships seem to charge annual fees and "carries" that are about average relative to all private equity partnerships, and similarly for the different types of hedge funds and long-only managers. If there is a fee issue, therefore, it relates to the overall choice of investment philosophy and asset allocation, not to any tendency to "overpay" relative to appropriate norms within an asset class. For better or for worse, the use of "alternative asset classes" rather than traditional managers entails substantially higher costs, and there is very little that any particular endowment (even the very largest of them) can do to change that reality. In a sense, SPS pays a premium for a more risk-averse diverse non-traditional approach to asset management, not unlike other endowments pursuing this same philosophy.

Another potential concern might be that using so many managers, including particularly so many "alternative asset" managers, results in more complexity and more chances for things to go wrong. This type of investment system, therefore, requires more internal due diligence and continuous careful monitoring than some other more traditional investment management schemes. Because of this, the internal costs (including consultants) are probably inherently higher. Unfortunately, this is a necessary part of the overall package that comes with SPS's investment philosophy. In SPS's case, the initial locus of these responsibilities and costs is actually the (external) consultant who analyzes and monitors the external firms on an ongoing basis. But this complexity also means that SPS must maintain an alert and active in-house financial office, and a very knowledgeable Investment Committee.

One final and more subtle concern about the external managers might be a certain skepticism about whether the turnover of managers, from one small not-well-known manager to another, will actually produce superior future results. After all, there are thousands of small not so well known managers. At any time, quite a few of them will have, perhaps by chance alone, superior past records, and some of those will seem to have produced the superior returns in a stable way (again, perhaps by chance alone). Whether such firms will have persistently superior <u>future</u> records, relative to a given current set of managers is, of course, a lot less clear. And, switching active investment managers can and does trigger transaction costs. This is, of course, the heart of the challenge of finding and employing active investment managers. All that can be said of this concern is that, over a very long time horizon, the net results will be observable in terms of relative performance. Exhibit 5 shows excerpts from the most recently available financial reports of the school (for the fiscal year ending 6/30/2002), which shed some light on these relative performance issues for different classes of SPS managers. As of 6/30/2003, the only additional relative performance information that is available, by manager, tells a mixed story. The managers with a three to five year record with SPS have generally favorable three to five year performance, though this is to be expected because of "survivor bias" in the data (underperformers tend to get fired, overperformers do not). The one year performance results show quite a few of SPS's managers underperforming their benchmarks, but one year is far too short a time period to begin to draw inferences, particularly because this one year period was unusual. For the moment at least, SPS's overall long term performance seems more than adequate, so there is currently no more need to worry about this concern than one would in any active investment management scheme.

Organization and Processes

SPS's organization and processes vis-à-vis the endowment seem to have been different than many comparable institutions. Historically, the role of the Treasurer has been central and extremely important, with less participation and oversight from the Investment Committee than would generally be appropriate. The external consultant (SCA) has also been deeply involved and very important in all aspects of the process, with less participation and oversight from the school's internal financial staff than would generally be appropriate. Historically, at least, there were fewer formal processes, such as minutes of various meetings, votes, records of performance reviews, institutional approval processes, and internally kept records of various decisions than would have been true for many comparably large endowments. These historical patterns could raise concerns about the breadth of involvement and oversight on endowment issues, particularly given the increasing complexity of the overall portfolio. It would seem both appropriate and important, given the increasing needs for transparency and accountability in the modern world, that the organizational processes and procedures at SPS evolve, toward a broader and more intensive involvement of the Investment Committee and the internal financial staff, and more formal processes and procedures.

Such an evolution is not without its potential drawbacks, however. In SPS's case, the Treasurer has been an experienced, sophisticated, and involved professional investor, with particular knowledge and experience in the "alternative strategies" arena. Aided by the consultant and less encumbered by formal processes and procedures, the Treasurer has pursued and implemented a sophisticated and distinctive investment approach. Other things being equal, a larger Investment Committee, a more involved Investment Committee, more formal processes including written records and detailed institutional approval procedures (which skeptics would label "bureaucracy"), all of these things will tend to drive the investment approach toward the norm of one's institutional peers. That would be an investment approach less susceptible to external criticism perhaps, and one with very little chance of underperforming the peer group. There would also be very less chance of outperforming the peer group. The challenge for SPS is to broaden involvement, increase oversight, and formalize processes, and yet not doom the evolving approach to mediocrity and average performance.

In this regard it is clear that over the last 18-24 months, changes have been taking place in these matters at SPS. There is a larger Investment Committee, augmented by sophisticated individuals with significant experience in investments and financial markets. The Investment Committee is taking a more active role in the endowment decision making process. Minutes are being recorded and kept. A separate external institution is providing some additional performance measurement information. The financial staff is becoming somewhat more involved in the flow of decisions, monitoring and performance measurement, records, and accountability. The School has adopted a new Conflict of Interest Policy, which seems both appropriate and consistent with best practice. A healthy evolution has thus begun, and the institutional challenge will be to continue this evolution, harnessing these changes for the better in terms of institutional consensus and decision-making, external transparency, and accountability on the one hand; and, accomplishing this without overly encumbering the process of formulating and implementing investment strategy on the other.

Recommendations

Overall, the endowment policies and practices of SPS seem sound, appropriate and risk-averse. There are, however, several important dimensions along which I would offer recommendations. Several of these are dimensions along which SPS has already clearly begun to change. Several are recommendations that SPS may have considered and rejected. In no particular order, the recommendations are:

1. Provide for a continued broad presence of investment expertise on the Investment Committee.
    - consider appointing members of the Investment Committee in the future who are not Trustees, but who have deep knowledge and experience in investments (including alternative investments).
    - and/or, consider appointing some Trustees specifically for their investment expertise (presumably from the parent or alumni bodies)

2. Involve the Investment Committee more deeply in investment strategy discussions, risk management considerations, and in the process of of regularly meeting with and monitoring the performance of external managers.

3. Consider an Executive Committee within the Investment Committee that could meet telephonically more frequently to discuss investment strategy, external managers and (most importantly) set the agenda for the larger committee.

4. Involve the school's financial staff (specifically, the CFO) much more deeply in endowment discussions, implementation, and performance monitoring, and make that staff (as opposed to a consultant) the principal depository of endowment records and the focal point of information flowing to and from the Investment Committee and the Treasurer.

5. Devise a simple standard set of risk measurements, including particularly measures of the net exposure to equity markets, both for individual asset classes and for the portfolio as a whole. Make sure the in-house staff and the Investment Committee regularly receive and monitor these risk measures.

6. Provide for an ongoing performance measurement and peer comparisons capability, independent of the investment consultant(s) involved in the investment decision-making process. Specifically, hire another investment consultant to do this, or (alternatively) evolve the role of the current consultant.

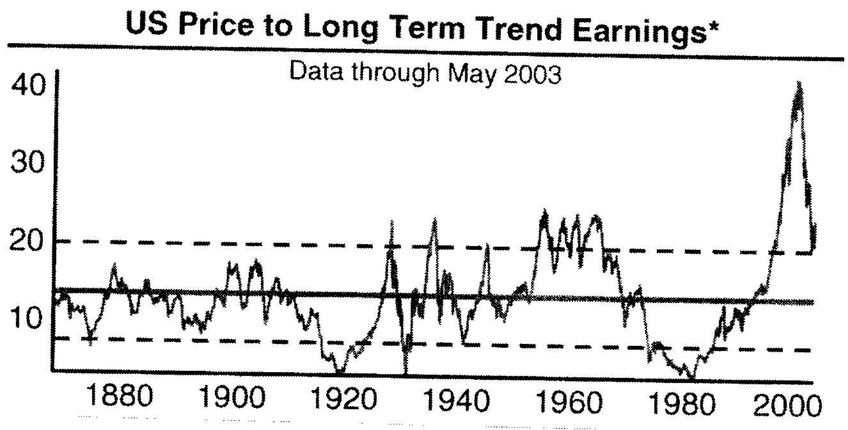
7. Consider a more diversified target asset allocation within marketable equities, including more exposure in target allocations to:
    - foreign equity markets (including emerging markets)
    - real estate (including REITs) and/or other real assets (timberland, resources, etc.)

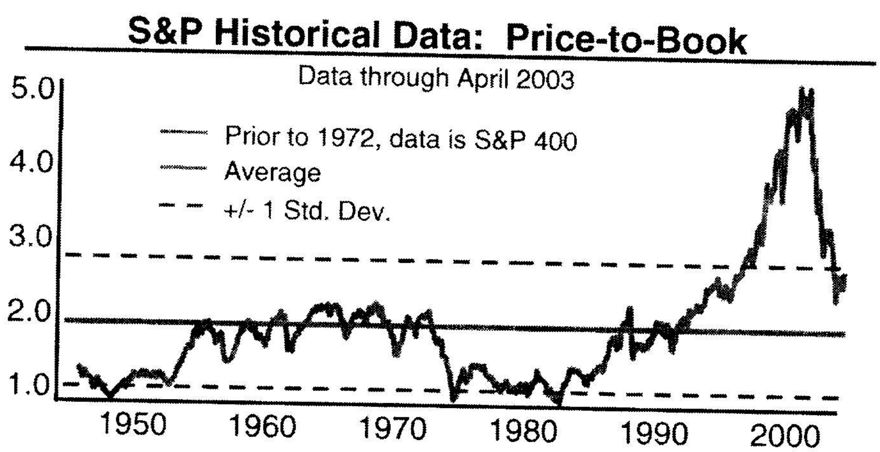
8. If and when more of the assets are allocated to long-only equity mangers, consider a small target allocation to fixed income (though the tactical timing of this is questionable today).

9. Consider a philosophy of less rapid turnover of external investment managers (relative to the last several years).

10. Focus the private equity positions (particularly the venture capital) with a smaller number of larger participations with premier well-known firms. (A smaller number of positions will reduce the complexity of the portfolio. In addition, reputation leads to deal flow in venture capital which can be a significant comparative advantage, leading to persistent relative performance. This is in contrast to publicly-traded markets where reputation merely attracts more potential inflows of AUM, eroding comparative advantage.)

EXHIBIT 1





MORGAN STANLEY
Source: MSIM Asset Allocation Research
*Note: 10-year moving average of earnings

EXHIBIT 2
RECENT ASSET ALLOCATIONS OF LEADING UNIVERSITY ENDOWMENTS

Average Asset Allocations of "Large" University Endowments[a]

	1995	2003
Publicly-Traded Securities:		
Domestic Equity	43	30
Foreign Equity	15	15
Hedge Funds	6	20
Fixed Income	17	19
Cash	4	2
Private Securities:		
Real Estate	5	4
Private Equity (incl. Venture)	8	8
Energy & Natl. Resources	1	2

Median Asset Allocation to "Alternative Investments" by Large Endowments/ Foundations: June 2003[b]

	% Allocation	
Private Equity	14%	22% in private illiquid allocations
Real Estate	8	
Hedge Funds	10	

[a] Source: Compiled from the National Association of College and University Business Officers, 2003 NACUBO Endowment Study (and earlier versions of the same published study). "Large funds" were defined as greater than $400 million in 1995, and greater than $1 billion in 2003.
[b] Source: Goldman Sachs International/Russell, "Report on Alternative Investing," 2003.

EXHIBIT 2 (continued)

Average Asset Allocations of Five Leading University Endowments: 2001 (Harvard, MIT, Princeton, Stanford, Yale)[c]

Publicly-Traded Securities:	
Domestic Equity	23%
Foreign Equity	15
Hedge Funds (External)	12
Fixed Income	11
Cash	4
Private Securities:	
Commodity-Related	3
Real Estate	9
Private Equity & Venture	23

[c] Source: HMC (2001), Harvard Business School case study. The allocation reported for "hedge funds" includes only external hedge funds. One endowment in this group (Harvard) has a set of very large internal hedge funds, in addition to those reported here.

EXHIBIT 3
2003 NACUBO Endowment Study

FY 03 Average Asset Class Allocation of Total Assets

Investment Pool Assets	Equity %	Fixed Income %	Real Estate %	Cash %	Hedge Funds %	Private equity %	Venture Capital %	Natural Resources %	Other %
Greater than $1.0 Billion	44.8	18.6	4.2	1.8	19.9	5.2	3.0	1.9	0.7
$501 Million - $1.0 Billion	54.4	18.2	4.2	1.4	13.4	4.2	2.7	1.1	0.4
$101 Million - $500 Million	56.5	23.5	2.9	2.7	8.3	2.2	1.3	0.8	1.8
$51 Million - $100 Million	58.7	27.2	2.8	4.9	4.3	0.6	0.3	0.1	1.1
$26 Million - $50 Million	60.2	27.7	2.6	3.5	4.2	0.2	0.2	0.1	1.4
Less than $25 Million	57.0	29.8	2.2	6.6	1.6	0.2	0.1	0.0	2.5
Public	58.1	27.9	2.1	4.0	4.3	0.9	0.5	0.4	1.6
Independent	56.7	24.9	3.1	4.0	6.9	1.5	0.9	0.4	1.6
Equal-weighted Average	57.1	25.9	2.8	4.0	6.1	1.3	0.8	0.4	1.6
Dollar-weighted Average	49.4	21.4	4.5	1.5	13.5	3.8	2.7	2.4	0.8

705 institutions provided investment pool asset class data. Table data are equal-weighted unless noted otherwise.

Participating institutions with between $26 million and $50 million in total assets hold, on average, the largest portion of equity in their portfolios (60.2 percent), while institutions with more than $1.0 billion in total assets hold the smallest: 44.8 percent, on average. The institutions with the largest investment pools hold the greatest proportion of alternative investments. The total dollar-weighted averages reflect the influence of these largest institutions, which ratchet down the average equity allocation and ratchet up the average alternative asset allocations accordingly.

In general, as total assets increase, the average percentage of assets allocated to equity, fixed income, and cash decreases. At the same time, as total assets increase, the average percentage of assets allocated to real estate and alternative assets generall increases. Independent institutions hold a larger proportion of alternative assets, on average, than do public institutions, but the latter hold a larger proportion of equity and fixed income assets.

EXHIBIT 4
EXTERNAL INVESTMENT MANAGEMENT FIRMS USED BY SPS

	12/31/2001	9/30/2003
Domestic Equity:		
Growth	Cohen, Klingenstein & Marks Roxbury Capital	Pollen Capital Rice Hall James
Value	Neuberger & Berman	Neuberger & Berman Deprince Race & Zollo Anchor Capital
Special Situations	Savoy	Savoy
Foreign Equity:	Brandes	Bleichroeder First Eagle Overseas
Hedge Funds:		
Event Driven	Actium Davidson Kempner Monarch Herristic Offshore	Actium Davidson Kempner
Fund of Funds	Preferred Investors Acorn Partners	Preferred Investors CT Fixed Income
Other		8 new hedge funds

EXHIBIT 5
EXCERPTS FROM "STATE OF THE SCHOOL" REPORT
ST. PAUL'S SCHOOL, JUNE 2003

INVESTMENT PHILOSOPHY

Overview

The Endowment's overall investment objective is to achieve a reasonably consistent rate of return on its total assets, with a concern for stability and preservation of capital. Consequently, the Endowment's assets have been, and continue to be, diversified across a broad range of equity, fixed income, cash equivalent and other types of securities.

In the past few years, during times of above-average market volatility and overall poor equity market performance, St. Paul's—like Princeton, Harvard, Yale, and other major endowments—has allocated greater portions of the Endowment to various "alternative investment" vehicles with low correlation to equity markets. Such vehicles have included hedge funds and similar pooled investment products that are typically available only to institutional and high net worth individual investors. The Investment Committee believes that these investment vehicles, which typically employ sophisticated hedging and investment strategies, offer the potential for absolute returns with significantly lower risk, particularly during down markets.

The School's reliance on the Endowment for operating and capital needs means that liquidity is an important factor in considering investments. Because certain types of alternative investments are less liquid than other types of investments, we have been careful to structure the Endowment's portfolio so that its liquidity will not be impaired. At fiscal year end 2002, approximately 25% of the Endowment was allocated to investments that could be liquidated within one week, representing more than four times the Endowment's assets budgeted for capital expenditures and operating expenses in the 2003 fiscal year. Approximately 57% of the Endowment at that time was available to be liquidated within four to seven months, while the remaining 18% was allocated to private equity investments, which are typically realized over 3 to 5 years.

Asset Allocation

The Investment Committee is charged with setting and reviewing the strategic asset allocation of the Endowment, while the Treasurer has responsibility for rebalancing the Endowment and making tactical allocation decisions supported by information provided by SCA. In working together to determine the proper allocation of the Endowment's assets, the Treasurer, the Investment Committee and SCA are subject to a number of explicit allocation restrictions set forth in the Endowment's Investment Policy Statement. The Investment Policy Statement also establishes target allocations among the various asset categories, including minimum and maximum allocation percentages.

EXHIBIT 5 (continued)

Over the past five years, the Endowment has undergone a change in its asset allocations, with the result that it relies less on traditional investments (such as stocks, bonds and cash) and more on alternative strategies (such as hedge funds and private equity investments). As of June 30, 1997, approximately 45% of the Endowment's assets were invested in U.S. stocks, bonds and cash. The following table shows the percentage of the Endowment held in each asset class as of June 30, 2002, along with the current target allocation percentage. Following the table is more detailed information about each asset class.

Asset Class	June 30, 2002 Actual	Current Target[a]
Domestic Equity	23.8%	20.0%
Foreign	6.8	2.0
Energy	5.9	5.0
Hedge Funds[b]	42.5	50.0
Private Equity[c]	17.5	21.0
Cash	3.6	2.0

Domestic Equity. The Domestic Equity category consists primarily of investments in publicly traded equity securities, including common and preferred stocks. Because the domestic equity managers preserve some flexibility to invest in securities other than purely domestic equities, a limited amount of assets allocated to this category may be invested in fixed income, cash equivalent and foreign securities.

The Endowment's investments in this category as of June 30, 2002, were divided among seven investment managers. Approximately two-thirds of the Endowment's Domestic Equity investments are allocated to value managers, while the remaining one-third is allocated to growth managers. Managers are hired for their expertise within specific segments of the market, including both market capitalization (small, mid or large cap) and investment style (value or growth).

The performance of the Domestic Equity category is compared to the S&P 500 Index and the Dow Jones Industrial Average for the 1-, 3- and 5-year periods ended June 30, 2002.

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[a] The Current Target column reflects the targets set for the various asset classes by the Investment Committee in October 2002. As noted above, the Treasurer has responsibility for making tactical decisions based on information and advice provided by the Committee's primary investment consultant, so actual future allocations may differ from the targets noted in the table.

[b] The Endowment's investments in its Hedge Funds category may also fit into other categories in the table above (particularly the Domestic Equity category). *See* "Hedge Funds" below for further information about the types of investments allocated to this category.

[c] The Private Equity category includes real estate investments. *See* "Private Equity" below.

EXHIBIT 5 (continued)

	1 Year	3 Years (annualized)	5 Years (annualized)
Domestic Equity Investments	-9.51%	-0.76%	5.60%
S&P 500 Index	-17.99	-9.18	3.67
Dow Jones Industrial Average	-10.31	-4.01	5.53

Foreign. The Foreign category consists of investments in the publicly traded equity securities, primarily depositary receipts (such as American Depositary Receipts), but also including common and preferred stocks, of companies organized under the laws of countries other than the United States, as well as investments in "emerging market" debt. As of June 30, 2002, approximately 90% of the Endowment's investments in the Foreign category were allocated to one investment manager that focuses on investments in equity securities across a diversified industrial and geographic spectrum. The remaining 10% of investments in the Foreign category were allocated to another investment manager that focuses on investments in the debt securities of companies located in emerging markets.

The performance of the equity component of the Foreign category is compared to the Morgan Stanley Capital International Europe, Australia, and Far East Index for the 1-, 3- and 5-year periods ended June 30, 2002. Because the emerging market debt component did not have performance information for a full one-year period as of June 30, 2002, no performance information is presented for that component.[8]

	1 Year	3 Years (annualized)	5 Years (annualized)
Foreign Investments – Foreign Equity	-8.47%	-0.18%	2.16%
MSCI EAFE Index	-9.22	-6.49	-1.26

Energy. Investments in the Endowment's Energy category include investments in the publicly traded securities, primarily equity securities, of companies whose activities relate primarily to energy production, delivery and services. These investments target attractive return prospects while providing a focus in an economically essential industry with significant impact on inflation and world economic, political and/or social events. Traditionally, these investments have had lower correlations to other major asset classes, and thus provide valuable portfolio diversification. As of June 30, 2002, the Endowment's investments in this category were divided between two funds managed by a single investment manager.

The performance of the Energy category is compared to that of an equally weighted average of the Standard & Poor's 500 Energy Equipment & Services Index and the

[8] The MSCI EAFE Index is an index composed of an arithmetic, market value-weighted average of the performance of over 1,100 securities listed on the stock exchanges of the countries located in Europe, Australia and the Far East. The index is calculated on a total-return basis, which includes reinvestment of gross dividends before deduction of withholding taxes.

EXHIBIT 5 (continued)

American Stock Exchange Oil Index.[9] The following table compares the investment returns of the Energy category to the performance of that weighted average benchmark for the 1-, 3- and 5-year periods ended June 30, 2002.

	1 Year	3 Years (annualized)	5 Years (annualized)
Energy Investments	-10.16%	-0.94%	-0.81%
Weighted Average Benchmark	-13.08	-4.06	0.19

Hedge Funds. The Hedge Funds category consists of alternative equity investments, typically through pooled investment vehicles, including "funds of funds," that target positive returns over time with low volatility and low correlation to traditional equity and fixed income asset classes. In this category, the Endowment's assets are allocated to investment managers demonstrating a low tolerance for losses, and with little to no use of leverage. The Endowment's target allocation is split between "event-driven" investments, where the investment manager seeks to exploit corporate events such as mergers and bankruptcy reorganizations to achieve targeted returns, and investments in "funds of funds," where the goal is to produce strong returns while reducing risk through diversification. As of June 30, 2002, the Endowment's investments in this category were divided among six investment managers, four in the "event-driven" subcategory and two in the "funds of funds" subcategory.

The performance of the Hedge Funds category is compared to the Credit Suisse First Boston/Tremont Hedge Fund Index and the S&P 500 Index for the 1-, 3- and 5-year periods ended June 30, 2002.[10] This index includes funds utilizing high levels of leverage whose highly volatile performance tends to inflate the index returns over time. The Endowment's more conservative approach to hedge fund investing allows only for funds with little to no leverage, which helps to mitigate its exposure to these dramatic swings.

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[9] The American Stock Exchange Oil Index is a price-weighted index designed to measure the performance of the oil industry through changes in the prices of American Depositary Receipts or Shares on common stocks of a cross section of widely held corporations involved in the exploration, production, and development of petroleum. The Standard & Poor's Energy Equipment & Services Index is a capitalization-weighted index of the common stocks of eight U.S. companies involved in the energy equipment and services business.

[10] The CSFB/Tremont Hedge Fund Index comprises 391 funds as of July 1, 2002. The Index is constructed using a database of more than 2,600 hedge funds. It includes both open and closed funds located in the United States and offshore, but does not include funds of funds. In order to qualify for inclusion in the index selection universe, a fund must have US $10 million under management, a 12-month track record, and an audited financial statement. Index funds are selected using a formula based on assets under management that ensures the Index always represents at least 85% of total assets in each of nine strategy-based sectors in the selection universe. Once added, funds are not excluded until they liquidate or fail to meet the financial reporting requirements, in order to minimize survivorship bias. The Index is calculated on a monthly basis and adjusted on a going-forward basis for capitalization and return.

EXHIBIT 5 (continued)

	1 Year	3 Years (annualized)	5 Years (annualized)
Hedge Fund Investments	-0.02%	7.19%	8.45%
CSFB/Tremont Hedge Fund Index	3.61	8.61	8.97
S&P 500 Index	-17.99	-9.18	3.67

Private Equity. The Private Equity category consists of investments in venture capital, mezzanine financing, leveraged buyout, real estate and royalty partnerships. The investments concentrate on partnerships seeking investments in companies that emphasize sustainable free cash flows and niche market positions as a platform for significant growth. In selecting Private Equity investments, the Treasurer targets attractive long-term risk-adjusted returns demonstrated by established, talented investment managers who attract quality deal flow. As of June 30, 2002, the Endowment's investments in this category were divided among 22 funds managed by 18 investment managers.

The performance of the Private Equity category is compared to the Cambridge Associates LLC U.S. Private Equity Index[11] for the 1-, 3- and 5-year periods ended June 30, 2002.

	1 Year	3 Years (annualized)	5 Years (annualized)
Private Equity Investments	-10.53%	16.35%	14.20%
Cambridge Associates LLC U.S. Private Equity Index	-13.33	-0.64	9.14

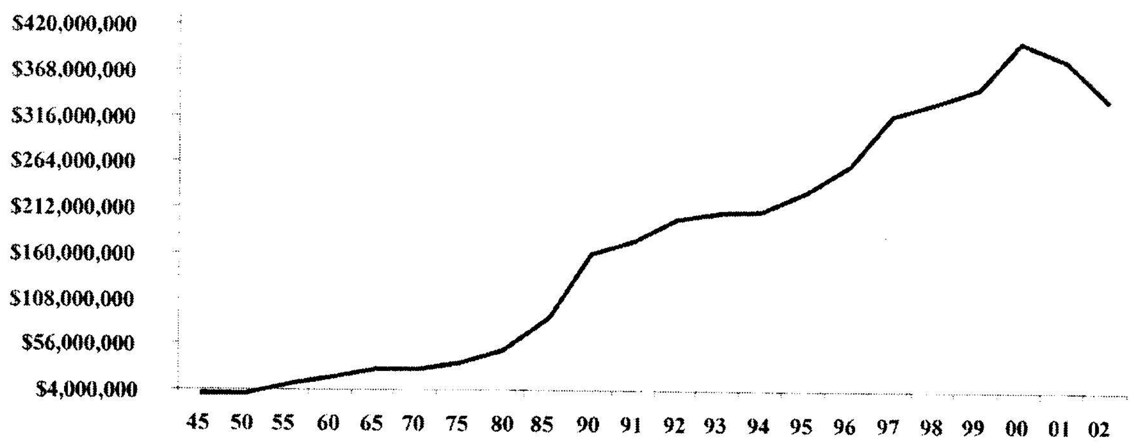
Investment Performance and Other Historical Information

Recognizing the importance of the Endowment to our operations, St. Paul's School has managed to grow its Endowment dramatically since 1945.

[11] The Cambridge Associates LLC U.S. Private Equity Index is based on data compiled on funds representing more than 70% of the total dollars raised by U.S. leveraged buyout, subordinated debt and special situation managers between 1986 and 2002. Cambridge Associates LLC calculates the pooled net time-weighted return by quarter from March 31, 1986, through the most recent quarter. The pooled means represent the time-weighted rates of return calculated on the aggregate of all cash flows and market values as reported to Cambridge Associates LLC in quarterly and annual audited financial reports. Net returns exclude all management fees, expenses and performance fees that take the form of a carried interest.

EXHIBIT 5 (continued)

Growth of Endowment



Fiscal Year Ending June 30

In the nearly 25 years since the School last conducted a major fundraising campaign, the Endowment grew from under $60 million (in 1980) to reach a high-water mark of approximately $401 million in 2000. As of June 30, 2002, the Endowment's value stood at approximately $329 million.

ADDENDUM

Harold Janeway and I have exchanged drafts of our analyses and comments, a process that I have found helpful. In this addendum, I will comment on my view of the explicit recommendations and the explicit "areas of concern" that he has mentioned in his report. I do this not as a way of trying to influence his views, nor as a mechanism of refutation, but rather in the spirit of trying to illuminate for SPS and for Mr. Janeway where I think we agree, and where I think we do not.

Beginning with Janeway's explicit recommendations, I agree with the thrust of many of them. There are several points, however, on which I disagree, and I will discuss those. First, while I agree that the Treasurer should not be granted "sole authority over investment matters," and is not as I understand the actual governance at SPS, I see no reason to separate the Treasurer position and the Chair of the Investment Committee. I think that such a separation would add a redundant level to the organization, increase bureaucracy, leave a relatively less important set of functions for the Treasurer, and make it harder to get really first rate people to fill the jobs. On balance, I like the current structure with the combined roles. It works well in other school endowments where I am involved, and I see no reason it can't work well at SPS.

Second, while I agree that the Board should get minutes of Investment Committee meetings, performance reports, detailed decisions on asset mix, reallocation of funds among managers, reports on the hiring and firing of managers, etc., it is very easy to drown a large group that has limited knowledge and expertise with too much "information." It can and often does become a meaningless pro-forma kind of oversight function, and I would suggest that that is the most likely and most dangerous kind of result when you direct a blizzard of paper the board's way. The real objective, instead, should be to have relatively infrequent (annual?) reports by the Investment Committee to the Board, but reports that focus squarely and in depth on the really important issues and decisions that have been considered or could be considered. That will lead to real oversight and involvement, instead of the pro-forma governance that often accompanies too much paper.

Thirdly, setting precise target allocations in the long-term Board-adopted Investment Policy Statement, as Janeway seems to suggest, could turn out to be a serious mistake. That SPS Board statement, as I read it, was intended as a very long-term document, and it attempts to provide longer-term objectives and guidance relevant in many different possible futures. The essence of the investment problem is that the economic background and the investment challenges are constantly, and sometimes very quickly, changing. For example, the investment dilemmas are <u>very</u> different today than they were just one year ago, with different problems, new issues, different opportunities, and different relative expected risks and returns. The Treasurer and the Investment Committee, <u>not</u> the Board, ought to continually review and consider all these, set its targets for asset allocation, and report those to the Board. The Board should <u>not</u> try to overly constrain that process, <u>unless</u> in the Board's judgment it results in an unacceptably risky posture for the endowment. But, for example, Janeway argues that the Board should set a "cap on hedge funds ... well below the current level" in the Investment Policy Statement. As a practical matter, this would almost surely result in a considerably more risky posture for the endowment than it is in today. (Other things being equal, moving from a hedged posture to an unhedged posture increases risk.) Maybe that will turn out to be the right investment "call," maybe it won't (I am skeptical). But I do not understand why the Board should be trying to make that "call" instead of the Investment Committee, and I do not think it should be done in a document that should be a very long-term policy statement that guides but does not overly constrain the Investment Committee's responsibility and flexibility.

Fourth, I do not think that an annual review and rehiring of the investment consultant would be a useful exercise. I do think, however, that as the investment process evolves, the Investment Committee needs to think carefully about the role of the investment consultant, and about which of the firms in that field would best suit St. Paul's needs going forward.

Proceeding to the "areas of concern" discussed by Janeway, these are my thoughts:

Complexity

The use of many different external investment managers adds complexity, that's for sure. Because of this, SPS needs to have an involved active Treasurer, in-house financial staff, and Investment Committee. But in my view, it certainly doesn't have to develop a Yale- or Harvard-like in-house staff. In my experience, the seven "long-only" managers and the hedge funds can be easily and adequately monitored with the Investment Committee, staff, consultant, and processes that SPS now uses. The one asset class where I worry a bit about the current complexity is the private equity area, with a very large number of partnerships. In that area, I think focusing the portfolio on a smaller number of larger participations and simplifying the portfolio over time would be helpful, both to reduce complexity and for other investment reasons.

Keep in mind, however, that utilizing more investment managers increases diversification too, so that there is a clear beneficial side to this "complexity." In the extreme, giving all the money to one external manager would be the least administratively complex, but potentially one of the riskiest strategies of all.

Transparency

Transparency can be more of a risk in "hedge funds" than in traditional managers, depending upon their disclosure policies, their leverage, and their diversification. In the specific case of SPS's hedge funds, however, these concerns do not seem to be a very serious problem. SPS's larger hedge fund positions (*e.g.,* Actium, or Davidson Kempner) are moderate risk vehicles managed by respected professionals with impressive long term track records of stable positive returns, whose investment policies are easy to understand, though their specific investments change as market opportunities change. None of them make large "directional bets," nor do they use a lot of leverage. Perhaps most importantly, the current Treasurer understands these private partnerships extremely well. The Funds of Funds do have quite a bit less transparency, of course, and I suppose one could fret about the possibility of one of their constituent funds "blowing up." But even in this worst-case scenario, the losses to SPS would be less than 1% or so, about the same as a bad afternoon in the stock market, or one of their traditional managers investing in a bad stock. Diversification here really does matter! No one would reasonably contend that Trustees need to deeply understand every company that their traditional external managers invest in, nor should they demand that Trustees understand every fund that an external diversified Fund of Funds invests in.

I think the more important point is that SPS's particular portfolio of hedge funds is, in fact, a quite low risk way of investing, due both to the character of the funds and the substantial diversification.

Measurability

I agree that performance measurements of the entire SPS endowment relative to its peers should be regularly obtained and monitored, as a useful supplement to the performance measured relative to market indices. Both kinds of comparisons can be helpful.

I do think, however, that there is plenty of performance data prepared by SCA on the school's marketable managers, comparing them both to market indices and to other similar managers with the same investment philosophy. In fact, I thought this was a real strength of the SCA system. I assume that the Investment Committee sees this data also, and utilizes it. I saw no problem in this regard, unless the rather broad and useful data I saw in the course of my discussions with the Treasurer and SCA is somehow being ignored.

Liquidity and Cash Requirements

I just do not see that liquidity should be a serious concern, for reasons discussed in my report.

Alternatives to Alternatives

I do think that investments like marketable REITs and global bonds are worth considering in the portfolio primarily because they would increase diversification. But I see that as a risk and return portfolio issue, not as a liquidity issue. And remember, these asset classes are not without considerable risk. For example, in just the last week and a half alone (early April), Janeway's recommended asset classes have been badly hit:

REITs have collapsed by 19%, and long-term bonds are down 9%. These are substantially larger losses, by many times, than have been incurred by any of SPS's hedge funds, or any other asset classes. So I am afraid that there are no easy answers here, as Janeway's report seems at times to imply. And traditional long-only investing in marketable securities can be substantially more risky than "hedge fund investing," notwithstanding the fact that it may feel more comfortable because it is more traditional.

Hedge Funds – A Word of Caution

I agree with these thoughts, and I think that the Treasurer and Investment Committee of SPS do, too (on the basis of discussions I have had with them on exactly this issue).